Amendments to the Claims

The following is a complete listing of the pending claims.

Claims 1-11 (Cancelled)

12. (Currently amended) A supplement delivery system comprising:

(i) an effective amount of at least one supplement selected from the group consisting of a cytotoxin or cell proliferation inhibiting compound, an osteogenic compound, a cartilage inducing compound, an antibiotic, an anesthetic, an anticoagulant compound, an anti-inflammatory compound, a cardiovascular drug, and a steroid; and

(ii) a biocompatible tissue sealant composition comprising fibrinogen in an amount which forms a fibrin matrix;

wherein said fibrinogen will form a fibrin matrix when in the presence of thrombin and $Ca^{++}$and water, and

further wherein said supplement is delivered from said fibrin matrix into the external environment of use for a sustained period , and

further wherein said effective amount of said supplement is greater than the amount which is soluble in said fibrin matrix, and

further wherein said composition is substantially free of <u>added</u> protease inhibitors; and

further wherein said sustained period is greater than the period obtained when the amount of said supplement is soluble in said fibrin matrix<u>; and</u>

<u>further wherein said fibrin matrix is substantially free of liposomes.</u>

13. (Previously presented) The delivery system of claim 12, wherein said delivery system is located in close proximity to tissue of a patient, thereby permitting the localized release of said supplement to the tissue of said patient.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Previously presented) The delivery system of claim 12, 34 or 36, wherein said supplement is introduced into said biocompatible tissue sealant composition prior to formation of said fibrin matrix as an emulsion of said supplement in a carrier liquid or component of said fibrin matrix.

18. (Previously presented) The delivery system of claim 12, 34 or 36, wherein said supplement is selected from the group consisting of an antibiotic, a chemotherapeutic drug, and an antifibrinolytic compound and interacts with said fibrin matrix and so increases the longevity of said fibrin matrix in said external environment of use, thereby permitting localized, sustained-release of said supplement.

19. (Previously presented) The delivery system of claim 12, 34 or 36, wherein said supplement is present in said fibrin matrix in solid form.

20. (Previously presented) The delivery system of claim 19, wherein said supplement is introduced into said biocompatible tissue sealant composition prior to formation of said fibrin matrix as a solution of said supplement dissolved in a carrier liquid, said carrier liquid having a higher rate of dissolution or diffusion in said fibrin matrix than said supplement contained therein, so that said supplement is deposited within the resulting fibrin matrix as a solid precipitate.

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Previously presented) The delivery system of claim 12, wherein said supplement is a cytotoxin or cell proliferation inhibiting compound and said environment of use is a neoplastic or hyperproliferative lesion of a patient and tissue adjacent thereto.

25. (Previously presented) The delivery system of claim 36, wherein said supplement is a growth factor selected from the group consisting of: fibroblast growth factors; platelet-derived growth factors; insulin-binding growth factors; epidermal growth factors; transforming growth factors; cartilage-inducing factors; osteoid-inducing factors; osteogenin; bone growth factors; collagen growth factors; heparin-binding growth factors; cytokines; interferons; and hormones.

26. (Previously presented) The delivery system of claim 36, wherein said supplement is an osteogenic protein or cartilage inducing protein selected from the group consisting of: cartilage-inducing factors; osteoid-inducing factors; osteogenin; and bone growth factors which modulate the proliferation, migration and/or attraction of progenitor bone cells.

27. (Previously presented) The delivery system of claim 12, wherein said supplement is an antibody.

28. (Previously presented) The delivery system of claim 34, wherein said supplement is a polynucleotide or an oligonucleotide.

29. (Previously presented) The delivery system of claim 34 or 36, wherein said supplement is an antimicrobial.

30. (Previously presented) The delivery system of claim 12 , 34 or 36, wherein said biocompatible tissue sealant composition further comprises thrombin.

31. (Previously presented) The delivery system of claim 12 , 34 or 36, wherein said biocompatible tissue sealant composition further comprises Factor XIII.

32. (Previously presented) The delivery system of claim 12, 34 or 36, wherein said biocompatible tissue sealant composition further comprises Ca^{++}.

33. (Cancelled)

34. (Currently amended) A supplement delivery system comprising:

(i) an effective amount of at least one supplement selected from the group consisting of an analgesic, an antifungal compound, an antiangiogenin, an antifibrinolytic compound, an antimicrobial compound, an antiparasitic agent, an antiseptic, an antiviral compound, a chemotherapeutic drug, a lipid ~~or liposome~~, an oligonucleotide or polynucleotide, a polysaccharide, a vasoconstrictor, a vasodilator, a vitamin, a nutritional supplement and a mineral; and

(ii) a biocompatible tissue sealant composition comprising fibrinogen~~,~~ in an amount which forms a fibrin matrix;

wherein said fibrinogen will form a fibrin matrix when in the presence of thrombin and $Ca^{++}$and water, and

further wherein said supplement is delivered from said fibrin matrix into the external environment of use for a sustained period, and

further wherein said amount of said supplement is greater than the amount which is soluble in said fibrin matrix, and

further wherein said composition is substantially free of <u>added</u> protease inhibitors, and

further wherein said sustained period is greater than the period obtained when the amount of said supplement is soluble in said fibrin matrix<u>; and</u>

<u>further wherein said fibrin matrix is substantially free of liposomes.</u>

35. (Previously presented) The delivery system of claim 12, 34 or 36, further comprising at least one agent selected from the group consisting of an antibiotic, a chemotherapeutic drug, and an antifibrinolytic compound that stabilizes said fibrin matrix and so increases the longevity thereof in said external environment of use.

36. (Currently amended) A supplement delivery system comprising:

(i) an effective amount of at least one supplement selected from the group consisting of a growth factor, an osteogenic protein, a cartilage inducing protein, an antimicrobial protein, an anticoagulant protein, an antibody, an antiangiogenin, a proteoglycan,; a polypeptide, an antifibrinolytic protein, an interferon, a hormone and a cytokine; and

(ii) a biocompatible tissue sealant composition comprising fibrinogen in an amount which forms a fibrin matrix;

wherein said fibrinogen will form a fibrin matrix when in the presence of thrombin and $Ca^{++}$and water, and

further wherein said supplement is delivered from said fibrin matrix into the external environment of use for a sustained period, and

further wherein said amount of said supplement is greater than the amount which is soluble in said fibrin matrix, and

further wherein said composition is substantially free of <u>added</u> protease inhibitors; and

further wherein said sustained period is greater than the period obtained when the amount of said supplement is soluble in said fibrin matrix; and

further wherein said fibrin matrix is substantially free of liposomes.

37. (Previously presented) The delivery system of claim 12, 34 or 36, wherein at least one protein is a recombinantly-produced protein.

38. (Currently amended) The supplement delivery system of claim 34, wherein the supplement is contained within a lipid ~~or liposome~~.